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Chapter 5. Transportation Recommendations

Vision Zero Resources
R5.1

**Vision Zero Resources**

Design roads immediately adjacent to new development to account for all identified recommendations from applicable planning documents including Functional Plans, Master Plans and Area Plans.

- Adopted - Bicycle Master Plan
- Completed – High Injury Network, Bicycle Level of Traffic Stress Map

- Transportation consultants shall check the accuracy of the bicycle and pedestrian network attributes in the county’s database relative to the observed existing conditions.

- Transportation consultants should identify any inaccurate network attributes and any attributes to be updated in accordance with the development “as built” plans and report this information to Montgomery Planning to update the county’s databases accordingly.
When there are conflicts between multiple plans, the most recently adopted plan should supersede any prior plans. However, when a project has relied on a prior plan in the entitlement process before the adoption of a new plan, reasonable grandfathering provisions should apply.

Generally support the idea of this recommendation but do not agree with “all” related to functional plans, master plans and area plans. First, this statement should apply to only those projects that require a LATR, which doesn’t apply to LATIP/UMP areas. Second, Page 139 of the bicycle Master Plan indicates that it does not require the County to construct all master planned bikeways but instead it provides options for implementation. The text that follows says that those options will be considered in studies and that extensive public outreach is needed.
Chapter 5. Transportation Recommendations

Mitigation Prioritization
Prioritize the application of modal mitigation approaches as follows when projected traffic generated from proposed projects exceeds the applicable policy area congestion standard:

- crash mitigation strategies to achieve Vision Zero, such as those identified in the Vision Zero Toolkit
- transportation demand management (TDM) approaches to reduce vehicular demand
- pedestrian or bicycle improvements beyond the development site frontage including those identified in the Pedestrian Master Plan and Bicycle Master Plan
- transit facility or service improvements
- intersection operational improvements
- roadway capacity improvements

Prioritize mitigation strategies designed to improve travel safety.
Mitigation Prioritization

• Generally support the idea this recommendation, but the order of prioritization should be adjusted to favor transit facility or service improvements relative to bike and pedestrian improvements.

• When there are conflicts between multiple plans, the most recently adopted plan should supersede any prior plans. However, when a project has relied on a prior plan in the entitlement process before the adoption of a new plan, reasonable grandfathering provisions should apply.

• No one opposes safety. But the cost of trying to achieve maximum safety must be balanced with the County’s underlying economic development objectives. MCDOT should actively participate in the safety evaluation and mitigation strategies. To the extent that safety measures slow or otherwise impair vehicle movements, then vehicular adequacy and delay standards must be adjusted accordingly.
Chapter 5. Transportation Recommendations

Development Review Committee
Development Review Committee

Given the additional focus on Vision Zero principles in the development review process, add a specific Vision Zero representative to the Development Review Committee (DRC) to review the development application and Vision Zero elements of LATR transportation impact studies and to make recommendations regarding how to incorporate the conclusions and safety recommendations of LATR transportation impact studies.

The DRC plays an important role in the development review process and should be used as a platform to elevate travel safety principles. An appropriate individual with a focus on Vision Zero, representing a public agency or Vision Zero advocacy group, should be incorporated into the committee.
The Vision Zero representative should be a DOT official who is familiar with the overall development review process and the inherent need to balance multiple objectives.
Chapter 5. Transportation Recommendations

Transportation Impact

Study Approach
To ensure development is executed to better align with Vision Zero principles, all LATR studies must include a Vision Zero Impact Statement that describes:

- any segment of the high injury network located on the development frontage.
- crash analysis for the development frontage.
- an evaluation of the required sight distance for all development access points.
- identification of conflict points for drivers, bicyclists and pedestrians and a qualitative assessment of the safety of the conflict.
- a speed study including posted, operating, design and target speeds.
- any capital or operational modifications required to maximize safe access to the site and surrounding area, particularly from the Vision Zero Toolkit.
Transportation Impact Study Approach (Vision Zero Impact Statement)

R5.4 Comment Summary

- It is difficult to comment on this recommendation without new LATR Guidelines and further information as to the required scope of these statements and how these statements must be prepared. All information necessary to prepare Vision Zero Impact Statements, such as accident investigation data, must be available and easily obtainable. Any proposed safety improvements resulting from a Vision Zero Impact Statement must meet a basic nexus and proportionality test. Any financial contributions collected based on the Vision Zero Impact Statement should be spent on Vision Zero improvements (as opposed to going into a general fund), and total funds collected across multiple nearby projects should not exceed the total cost of Vision Zero improvements that would serve those projects.
For LATR studies of new development generating 50 or more peak-hour weekday person trips, couple current multi-modal transportation adequacy tests with options that can be implemented over time utilizing Vision Zero-related tools and resources currently available and under development. When the appropriate set of tools described in Recommendation R5.1 are operational, the current multi-modal transportation adequacy tests should be updated as follows.
Revised LATR (Vision Zero-enhanced)

R5.5

- Safety System (50 person trip trigger)
  - Vision Zero Test
    - Reduce the estimated number of crashes based on predictive safety performance functions or number of conflict points
- Motor Vehicle System (50 person trip trigger)
  - Retain existing capacity test
Transportation Impact Study Approach

R5.5 Revised LATR (Vision Zero-enhanced)

- Pedestrian System
  o Retain existing test for ADA compliance (50 pedestrian trip trigger)
  o Acceptable pedestrian level of comfort within 500 feet of the site boundary, or to transit stops within 1,000 feet (5 pedestrian trip trigger)
  o Lighting review (5 pedestrian trip trigger)
- Bicycle System
  o Existing test – low levels of traffic stress within 750 feet of the site (5 bicycle trip trigger)
- Transit System
  o Existing capacity test – peak load level of service (5 transit trip trigger)
The proposal to reduce the threshold for the pedestrian system, transit system and bicycle system adequacy tests to five (5) peak-hour trips is too onerous and would require smaller development projects in Metro Station Policy Areas to expend considerable resources satisfying these new regulatory mandates that involve off-site improvements which maybe disproportionate to the size of the project.
Chapter 5. Transportation Recommendations

Transportation Study

Scoping
Eliminate the LATR study requirement for motor vehicle adequacy in Red Metrorail Station Policy Areas (MSPAs).

- Why do this?
  - Capacity-based measures often result in mitigation requirements in conflict with Vision Zero
  - Leverage significant Metrorail investment to support desired development
  - Multi-modal environment provides alternative travel mode opportunities
  - Robust street grid disperses traffic

- Retain adequacy tests for non-auto modes (i.e., ped, bike and transit)
Transportation Impact Study Approach
(Eliminate Motor Vehicle LATR Test in Red Policy Areas)

R5.6 Comment Summary

• Support this recommendation given that there are few improvements that can be made in MSPAs thus the studies provide little information. Most recommended LATR improvements in MSPAs run counter to the direction Vision Zero would direct.

• Ideally an UMP and resulting fees should be developed before making this change. However, until such a time that UMPs can be developed, a flat fee should be applied in order to provide uniformity among MSPAs. Suggest using the average of the LATIP fee for White Oak and Bethesda until individual MSPA fees can be established.
Chapter 5. Transportation Recommendations

Transit Corridor

Congestion Standards
Transit Corridor Congestion Standard

R5.7

Increase the intersection delay standard to 100 seconds/vehicle for transit corridor roadways in Orange and Yellow policy areas to promote multi-modal access to planned Bus Rapid Transit service in transit corridors.

• Why do this?
  o Consistency with Viers Mill Corridor Master Plan recommendation
  o Consistency with Vision Zero
  o Encourages transit-oriented development
Transit Corridor Congestion Standard

R5.7

- Transit corridor roadways traverse **Red**, **Orange** and **Yellow** policy areas

- Recommendation will **not** apply in **Red** Metro Station policy areas (consistent with recommendation R5.6)
Transit Corridor Congestion Standard
(Establish a 100 secs/vehicle delay standard for signalized intersections along transit corridor roadways.)

R5.7
Comment
Summary

• Generally support this recommendation.
• Consider lowering the proposed delay standard to 80 seconds/vehicle.
• Consider raising the proposed delay standard to 110 seconds/vehicle.
Chapter 5. Transportation Recommendations

Purple Line Station Policy

Area Categorization
R5.8 Place the three Purple Line Station policy areas in a new \textit{dark red} policy area category. Conceptually, this change will reflect a “hybrid” between the red and orange policy area categorization.

- The Purple Line is imminent, scheduled for completion in 2023
- The Purple Line traverses three Purple Line policy areas:
  - Chevy Chase Lake
  - Long Branch
  - Takoma/Langley
Place the three Purple Line Station policy areas in a new dark red policy area category. Conceptually, this change will reflect a “hybrid” between the red and orange policy area categorization.

- Why do this?
  - Recognition that policy area categorizations may change over time
  - Leverage improved transit service provided by Purple Line to support transit-oriented development
Purple Line Station Policy Area Categorization

• Place all three Purple Line Station Policy Areas in the Red policy area category (consistent with MSPAs).
Commensurate with this new categorization, the congestion standard for signalized intersections and transportation impact tax rates in the Purple Line Station policy areas will change.
Purple Line Station Policy Area Categorization

- Place all three Purple Line Station Policy Areas in the Red policy area category (consistent with MSPAs) so that the applicable transportation impact surtax would apply.

- Place other areas planned for LRT or BRT service in the proposed Dark Red or Red policy area category so that the applicable transportation impact surtax would apply, including:
  - Lyttonsville (as a proposed new Purple Line Station Policy Area);
  - Policy areas (or portions thereof) proximate to planned BRT service (e.g., Viers Mill Road and US 29);
  - Council-designated strategic “Economic Opportunity Centers” and
  - MWCOG Designated “High/Highest Growth Jobs and Population Activity Centers” (identified in Hearing Draft Figures 4 and 5 on pages 11 and 12).
Commensurate with this new categorization, the congestion standard for signalized intersections and transportation impact tax rates in the Purple Line Station policy areas will change.

<table>
<thead>
<tr>
<th>Purple Line Station Policy Area</th>
<th>Current HCM Delay Standard (seconds/vehicle)</th>
<th>Proposed HCM Delay Standard (seconds/vehicle)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long Branch</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>Takoma/Langley</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>Long Branch</td>
<td>80</td>
<td>100</td>
</tr>
</tbody>
</table>
Purple Line Station Policy Area Categorization
(Increase Intersection Delay Standard to 100 sec/vehicle)

R5.9
Comment
Summary

• Generally agree with the direction of this recommendation. However, suggest a 110 seconds/vehicle delay standard would be appropriate should this standard be applied to the transit corridor roadways described in Recommendation 5.7.
Chapter 5. Transportation Recommendations

Transportation Monitoring
R5.9 Continue producing the Mobility Assessment Report (MAR) on a biennial schedule as a key travel monitoring element of the County Growth Policy.

- Summarizes the trends, data, and analysis results used to track and measure multi-modal transportation mobility conditions in Montgomery County.

- Provides information to residents and public officials regarding the state of the county’s transportation system, showing not only how the system is performing, but also how it is changing and evolving.

- Given the desire to combine the MAR with the biennial monitoring element of the Bicycle Master Plan, change the name of the report to Travel Monitoring Report.
Transportation Monitoring
(Continue the production of the Mobility Assessment Report)

R5.9
Comment

Support this recommendation.
Chapter 5. Transportation Recommendations

Policy Area Review for Master Plans
The proposed auto and transit accessibility metric is the average number of jobs that can be reached within a 45-minute travel time by automobile or walk access transit.

What? Number of jobs accessible within 45 minutes greater than future baseline conditions
   Auto: 1,159,950 jobs on average
   Transit: 134,160 jobs on average

How? Travel/4 Model

Where? TAZ level; population-weighted average to County

Why? Indicates accessibility to destinations
   Can demonstrate accessibility tradeoff of new destination options, increased density of development, increased congestion, and transportation network changes
R5.10 Comment Summary

- We understand the objective to look at policy area transportation impacts for Master Plans, but are unsure why this should require a mandate within the SSP. If this recommendation moves forward, we believe that there should be higher standards than the baseline requirements to help us work towards our mode share, climate, and congestion goals.

- Do not have enough information to take a position on this recommendation.
The proposed metric for auto and transit travel times is average time per trip, considering all trip purposes.

**What?**
- Average travel time per trip (all trips) less than future baseline
  - 19 minutes for Auto (vs. 16 minutes existing)
  - 52 minutes for Transit (vs. 50 minutes existing)

**How?**
- Travel/4 Model + custom script

**Where?**
- TAZ level; County average for all trips

**Why?**
- Indicates total amount of time spent traveling per trip
- Travel time more intuitive measure of burden than intersection delay
- Changes in a Policy Area affect travel times not only for that policy area but for much of the County.
- Congestion may increase, but effects on travel times for individual trips may be offset by changes to trip distribution patterns and shorter trip distances afforded by new destination options in closer proximity.
Policy Area Review – Auto & Transit Travel Times

- Support this recommendation but suggest it should only apply to work-related trips.

- We understand the objective to look at policy area transportation impacts for Master Plans, but are unsure why this should require a mandate within the SSP. If this recommendation moves forward, we believe that there should be higher standards than the baseline requirements to help us work towards our mode share, climate, and congestion goals. For example, we should set more equal standards for average time per trip. 19 minutes for auto trips and 52 minutes for transit encapsulates the transit inequities ingrained into our land use and transportation planning.

- Do not have enough information to take a position on this recommendation.
The proposed metric for vehicle miles traveled per capita is daily miles traveled per "service population", where "service population" is the sum of population and total employment for a particular TAZ.

What? Daily vehicle miles traveled per "service population" less than future baseline

12.4 VMT per capita (vs. 13.0 existing)

How? Travel/4 Model + custom script

50% of origin VMT + 50% of destination VMT
The proposed metric for vehicle miles traveled per capita is daily miles traveled per "service population", where "service population" is the sum of population and total employment for a particular TAZ.

Where? Service Population-weighted County average

Why? VMT per capita will reflect changes in trip distribution patterns, trip lengths, and shifts in mode of travel due to changing destination options.

Changes in a Policy Area affect vehicle miles traveled not only for that policy area but for other parts of the County as well.
Policy Area Review - Vehicle Miles Traveled per Capita

R5.12

Comment Summary

- We understand the objective to look at policy area transportation impacts for Master Plans, but are unsure why this should require a mandate within the SSP. If this recommendation moves forward, we believe that there should be higher standards than the baseline requirements to help us work towards our mode share, climate, and congestion goals.

- Do not have enough information to take a position on this recommendation.
The proposed metric for non-auto driver mode share is the percentage of non-auto driver trips (i.e., HOV, transit and nonmotorized trips) for trips of all purposes.

What? % of non-auto driver trips greater than future baseline 46% NADMS for all trip purposes

How? Travel/4 Model + custom script
Includes origin and destination trip ends

Where? TAZ level; summarized for all County trips

Why? Indicates use of non-auto modal options
Changes in a policy area affect mode choice decisions not only for that policy area but for other parts of the County as well.
Policy Area Review – Non-Auto Driver Mode Share

R5.13 Comment Summary

• We understand the objective to look at policy area transportation impacts for Master Plans, but are unsure why this should require a mandate within the SSP. If this recommendation moves forward, we believe that there should be higher standards than the baseline requirements to help us work towards our mode share, climate, and congestion goals.

• Do not have enough information to take a position on this recommendation.
The proposed metric for bicycle accessibility is the Countywide Connectivity metric documented in the 2018 Montgomery County Bicycle Master Plan (page 200).

**What?** Percentage of potential bicycle trips able to be made on a low-stress bicycling network.

("appropriate for most adults" or "appropriate for most children")

Consistent with approach for Objective 2.1 of Bicycle Master Plan – “Countywide Connectivity”

**How?** ArcMap GIS script network analysis

Bicycle Master Plan Bike Stress Map (County Only)

Bicycle trip length decay function

**Where?** Census Block Group level

Countywide % of potential bicycle trips

**Why?** Indicates bike accessibility to destinations in Montgomery County

Proxy for safe segment and crossing connectivity
The proposed metric for bicycle accessibility is the Countywide Connectivity metric documented in the 2018 Montgomery County Bicycle Master Plan (page 200).

**R5.14**

The proposed metric for bicycle accessibility is the Countywide Connectivity metric documented in the 2018 Montgomery County Bicycle Master Plan (page 200).

### GOAL 2: CREATE A HIGHLY-CONNECTED, CONVENIENT AND LOW-STRESS BICYCLING NETWORK

<table>
<thead>
<tr>
<th>OBJECTIVE</th>
<th>METRIC</th>
<th>EXISTING (2018)</th>
<th>FUND-ED</th>
<th>HIGH PRIORITY</th>
<th>TIER 1</th>
<th>TIER 2</th>
<th>TIER 3</th>
<th>TIER 4</th>
<th>BUILD OUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>Countywide Connectivity</td>
<td>15%</td>
<td>N/A</td>
<td>20%</td>
<td>30%</td>
<td>40%</td>
<td>50%</td>
<td>60%</td>
<td>80%</td>
</tr>
</tbody>
</table>

- **City of Gaithersburg**
- **City of Rockville**

**Connectivity**
- 0% - 20%
- 21% - 40%
- 41% - 60%
- 61% - 80%
- 81% - 100%
Policy Area Review – Bicycle Accessibility

R5.14 Comment Summary

- Additional time is needed to assess how this metric will impact development.
Metro Station Policy Area Boundary Recommendations
Forest Glen Metro Station Policy Area (MSPA)

Pursuant to the resolution approving the recently adopted Forest Glen/Montgomery Hills Sector Plan, define the precise boundary of the new Forest Glen MSPA.

- Policy area boundary **roughly** defined as the Sector Plan area ½ mile radius from the Forest Glen Metro Station.
Grosvenor Metro Station Policy Area (MSPA)

Revise the boundary of the Grosvenor MSPA to incorporate two parcels abutting the northeast end of the policy area.

- **Academy of the Holy Cross** and **Saint Angela Hall** properties
- Rezoning contemplated to support additional residential density